

**In the Claims:**

Please amend claims 1-12 and 14-45, as indicated below.

1. (Currently amended) A method<sub>1</sub> comprising:

determining if servicing a consume request for a resource would cause a threshold rate that corresponds to the requested resource to be exceeded, wherein the consume request is from one of a plurality of resource consuming isolates bound to a resource domain for the requested resource; and

if the threshold rate would be exceeded, then delaying servicing of the request for at least a period of time sufficient to avoid exceeding the threshold rate;

wherein the threshold rate is specified in a resource policy installed in the resource domain, wherein the resource domain associates the resource policy for the requested resource with the plurality of resource consuming isolates bound to the resource domain.

2. (Currently amended) The method of claim 1<sub>1</sub>, wherein a first isolate resolves a trigger that determines if the threshold rate would be exceeded and delays servicing of the request, wherein the first isolate is a set of one or more computations that have a state that is independent of a state of other computations and that monitor and control resource requests for the resource separate from the implementation of the resource.

3. (Currently amended) The method of claim 2<sub>1</sub>, wherein the first isolate monitors and controls resource requests based at least in part on a set of common attributes used to characterize ~~characterizing~~ the resource, wherein the set of attributes ~~include~~ comprises one or more attributes indicating whether the resource is one or more of: disposable, revocable, reservable, and bounded.

4. (Currently amended) The method of claim 2, wherein the trigger is specified by a second isolate.

5. (Currently amended) The method of claim 4, wherein the second isolate installs the trigger in [[a]] the resource domain and the first isolate determines the trigger from the resource domain, ~~wherein the resource domain includes an encoding that associates one or more resource policies with resource consuming isolates.~~

6. (Currently amended) The method of claim 1, wherein the threshold rate indicates a maximum allowable resource usage by a particular resource consumer within a given interval.

7. (Currently amended) The method of claim 6, wherein the resource consumer ~~includes~~ comprises a client, an isolate, a process, ~~and or an~~ application.

8. (Currently amended) The method of claim 6, further comprising recording previous consume requests from the resource consumer.

9. (Currently amended) The method of claim [[1]] 6, further comprising recording previously consumed amounts of the resource.

10. (Currently amended) The method of claim 9, further comprising purging those recorded previously consumed amounts of the resource that fall beyond the given interval.

11. (Currently amended) The method of claim 9, wherein said determining comprises:

determining a current usage of the requested resource;

determining a potential usage of the resource based at least in part on the consume request;

determining previously consumed amounts of the resource within a given interval from the recorded previous consumed amounts; and

determining if the threshold rate will be exceeded based at least in part on the current usage, the potential usage, and the previously consumed amounts of the resource.

12. (Currently amended) The method of claim 11 wherein said determining if the threshold rate ~~[[is]]~~ will be exceeded is in accordance with the following, wherein ~~previously consumed amounts~~ previouslyconsumedamount indicates the amount of the resource previously consumed within the given interval:

$$\text{amount\_over\_threshold} = \text{potentialusage} - \text{currentusage} + \text{previouslyconsumedamount} - \text{threshold}.$$

13. (Original) The method of claim 12 wherein the period of time is determined with the following:

$$\text{period\_of\_time} = (\text{amount\_over\_threshold} / \text{threshold}) * \text{interval}.$$

14. (Currently amended) The method of claim 1<sub>a</sub> wherein said delaying servicing of the request comprises sleeping for the period of time.

15. (Currently amended) The method of claim 1<sub>a</sub> wherein said determining if the threshold rate is exceeded comprises:

determining a rate of requests for the resource from a particular resource consumer; and

comparing the rate of requests against the threshold rate, wherein the threshold rate indicates a maximum number of allowable requests for [[a]] the resource within a given interval.

16. (Currently amended) The method of claim 46 17, wherein said determining the rate of requests comprises:

determining a number of requests for the resource received from the particular resource consumer over the given interval.

17. (Currently amended) The method of claim 1<sub>a</sub> embodied as a computer program product encoded in one or more machine-readable storage media.

18. (Currently amended) A method<sub>a</sub> comprising:

managing consume requests for a resource from a plurality of computations that consume the resource and that are bound to a resource domain for the resource; and

throttling the consume requests to conform to a threshold;

wherein the threshold is specified in a resource policy installed in the resource domain, wherein the resource domain associates the resource policy for the resource with the plurality of computations bound to the resource domain.

19. (Currently amended) The method of claim 49 18, wherein said throttling the consume requests comprises delaying those consume requests that would cause the threshold to be exceeded.

20. (Currently amended) The method of claim 20 19, wherein said delaying comprises sleeping for a period of time.

21. (Currently amended) The method of claim 49 20, further comprising:

determining a current usage, a potential usage, and a previously consumed resource amount within an interval.

22. (Currently amended) The method of claim 22 21, wherein the period of time is determined in accordance with the following:

$$\text{amount\_over\_threshold} = \text{potential usage} - \text{current usage} + \text{previously consumed amount} - \text{threshold}; \text{ and}$$

$$\text{period\_of\_time} = (\text{amount\_over\_threshold} / \text{threshold}) * \text{interval}.$$

23. (Currently amended) The method of claim 49 18, wherein the threshold ~~includes~~ comprises a threshold for a consumed resource amount, a threshold for a resource consumption rate, a threshold for a number of resource consume requests, ~~and or~~ a threshold for a consume request rate.

24. (Currently amended) The method of claim 49 18, wherein said managing consume requests comprises a dispenser isolate ~~manages~~ managing resource requests, wherein an isolate[[s]] ~~includes~~ comprises a set of one or more encapsulated computations ~~with having a state that is~~ independent of a state of other computations.

25. (Currently amended) The method of claim 25 24, wherein said throttling comprises the dispenser isolate ~~resolves~~ resolving a trigger ~~to throttle requests~~.

26. (Currently amended) The method of claim 26 25, wherein the trigger is specified by a second isolate.

27. (Currently amended) The method of claim ~~27~~ 26, wherein said throttling further comprises the second isolate ~~installs~~ installing the trigger in ~~[[a]]~~ the resource domain, ~~wherein the resource domain includes one or more encodings that associate resource policies for the resource and computations that consume the resource.~~

28. (Currently amended) The method of claim ~~49~~ 18, embodied as a computer program product encoded in one or more machine-readable storage media.

29. (Currently amended) A ~~computer program product encoded on one or more machine-readable~~ storage medium storing program instructions executable to implement media, the computer program product comprising:

a posting facility ~~code~~ that posts consume requests for resources;

a rate controller ~~code~~ that delays resource consume requests that will cause a threshold to be exceeded; and

a resource domain that associates a resource policy for a requested resource with a plurality of resource consuming isolates bound to the resource domain;

wherein consume requests for the requested resource are received from one of the plurality of resource consuming isolates bound to the resource domain for the requested resource; and

wherein the threshold is specified in the resource policy installed in the resource domain.

30. (Currently amended) The ~~computer program product~~ storage medium of claim ~~30~~ 29, wherein the program instructions executable to implement the posting facility ~~code is based~~ are dependent at least in part on a dispenser class, wherein the

dispenser class defines an intermediary set of one or more computations that monitor and control resource requests.

31. (Currently amended) The ~~computer-program-product~~ storage medium of claim 34 30, wherein the program instructions executable to implement the rate control code is based are dependent at least in part on a trigger class, wherein the trigger class defines one or more computations that query existence of at least one condition based at least in part on usage of a given resource.

32. (Currently amended) The ~~computer-program-product~~ storage medium of claim 30 29, wherein the threshold includes comprises a threshold for a consumed resource amount, a threshold for a resource consumption rate, a threshold for a number of resource consume requests, ~~and or a~~ threshold for a consume request rate.

33. (Currently amended) The ~~computer-program-product~~ storage medium of claim 30 29, wherein the program instructions executable to implement the rate control code invoke[[s]] a sleep computation to delay resource consume requests.

34. (Currently amended) The ~~computer-program-product~~ storage medium of claim 34 33, wherein the program instructions executable to implement the rate control code that is further executable to implement determining one or more of: ~~determines~~ a current resource usage, a potential resource usage, and a previously consumed resource amount within an interval.

35. (Currently amended) The ~~method~~ storage medium of claim 35 34, wherein a period of time that the sleep computation is invoked is determined in accordance with the following:

$$\text{amount\_over\_threshold} = \text{potential usage} - \\ \text{current usage} + \text{previously consumed amount} - \text{threshold}; \text{ and}$$

$$\text{period\_of\_time} = (\text{amount\_over\_threshold} / \text{threshold}) * \text{interval}.$$

36. (Currently amended) A ~~computer program product~~ encoded on one or more machine-readable storage medium storing program instructions executable to implement media, the computer program product comprising:

a resource domain associating a resource policy for a requested resource with a plurality of resource consuming isolates bound to the resource domain;

a first sequence of instructions ~~[[to]] determine~~ determining if servicing a consume resource request from one of the plurality of resource consuming isolates bound to the resource domain for the requested resource will cause a threshold to be exceeded; and

a second sequence of instructions ~~[[to]] determine~~ determining a period of time to delay the request to avoid exceeding the threshold;

wherein the threshold is specified in the resource policy installed in the resource domain.

37. (Currently amended) The ~~computer program product~~ storage medium of claim ~~37~~ 36, wherein the threshold includes comprises a threshold for a consumed resource amount, a threshold for a resource consumption rate, a threshold for a number of resource consume requests, and or a threshold for a consume request rate.

38. (Currently amended) The ~~computer program product~~ storage medium of claim ~~37~~ 36, wherein the period of time to delay the request is based at least in part on a currently used amount of the resource, a potentially used amount of the resource based on the resource request, a previously consumed amount of the resource, a time interval, and the threshold, wherein the previously consumed amount of the resource indicates the amount of previously consumed resource within the interval.



39. (Currently amended) The ~~computer-program-product~~ storage medium of claim ~~39~~ 38, wherein the period of time is determined according to the following:

$$\text{amount\_over\_threshold} = \text{potential usage} - \text{current usage} + \text{previously consumed amount} - \text{threshold}; \text{ and}$$

$$\text{period\_of\_time} = (\text{amount\_over\_threshold} / \text{threshold}) * \text{interval}.$$

40. (Currently amended) The ~~computer-program-product~~ storage medium of claim ~~37~~ 36, wherein said delaying the request comprises sleeping.

41. (Currently amended) An apparatus, comprising:

system memory; and

means for throttling ~~resource~~-requests for a resource from a plurality of resource consuming isolates bound to a resource domain for the requested resource to comply with a threshold, which corresponds to a resource;

wherein the threshold is specified in a resource policy installed in the resource domain, wherein the resource domain associates the resource policy for the resource with the plurality of resource consuming isolates bound to the resource domain.

42. (Currently amended) The apparatus of claim ~~42~~ 41, wherein the threshold ~~includes~~ comprises a threshold for a consumed resource amount, a threshold for a resource consumption rate, a threshold for a number of resource consume requests, ~~and or~~ a threshold for a consume request rate.

43. (Currently amended) The apparatus of claim ~~42~~ 41, further comprising means for determining if the threshold will be exceeded.

44. (Currently amended) The apparatus of claim ~~42~~ 41, wherein the resource is characterized by a set of attributes that are common across different resources.

45. (Currently amended) The apparatus of claim ~~42~~ 44, wherein the set of attributes ~~include~~ comprises one or more attributes indicating whether the resource is one or more of: disposable, revocable, reservable, and bounded.